SENNERTIA OUDEMANS (ACARI, CHAETODACTYLIDAE) ON AUSTRALIAN BEES

by A. FAIN*

Summary

FAIN, A. (1982). *Sennertia* Oudemans (Acari, Chaetodactylidae) on Australian bees. *Trans. R. Soc. S. Aust.* **106**(2), 67-70, 30 June, 1982.

The hypopodial stages of *Sennertia* described by Womersley from Australian bees are reidentified as *S. (Afrosennertia) queenslandica* Womersley, *S. (S.) leei* sp. nov. and *alfkeni* Oudemans.

KEY WORDS: Acari, Chaetodactylidae, *Sennertia*, bees, taxonomy.

Introduction

In a revision of *Sennertia* Oudemans, 1905 by Fain (1981), the hypopi described by Womersley (1941) as *S. queenslandica*, sp. nov. and *S. ?bifilis* Canestrini were not included as they were unavailable. I have since examined them and can report that *S. queenslandica* belongs in the subgenus *Afrosennertia* and that none of the hypopi referred to as *S. ?bifilis* belongs to that species, some being *S. (S.) leei* sp. nov. whilst others are *S. (S.) alfkeni* Oudemans. These are the only specimens of *Sennertia* recorded from Australia. All are from xylocopid bees, and are deposited in the South Australian Museum, Adelaide unless otherwise stated.

Sennertia (Afrosennertia) queenslandica Womersley

FIGS 1–2

Sennertia queenslandica Womersley, 1941: 479, figs 16.

Sennertia (Aslosennertia) queenslandica: Fain, 1981: 176.

Description of hypopi: Lectotype 435μ long, 378μ wide. Three paralectotypes—430μ × 350μ, 420μ × 435μ, 410μ × 360μ. Posterior margin of soma rounded.

Dorsum: Cuticular striations thin. Cuticle very finely punctate. Hysteronotal shield triangular, 160μ long, 159μ wide posteriorly; without median sclerite; prolonged ventrally and bearing setae *d*3, *d*4, *d*5 and *l*5. Setae *sc i*, *d*1 and *d*2 microsetae. Setae *sc e*, *l*1, *l*2, *l*3, *h* 70μ, 75μ, 45μ 51μ, 63μ long respectively. Setae *l*5 200–230μ long, 66μ apart.

Venter: Setae *sh* 27μ long, other ventral setae very thin. Suctorial plate surrounded by sclerotized frame 63μ wide. Diameter of anterior suckers 12μ, of posterior suckers 19–21μ, latter slightly longer (21μ) than wide (18–19μ). Conoids small, situated on slightly concave line.

Legs: Claws very large (I-II 55μ, III 48μ long). Pretarsi with long triangular process. Tarsi IV 63μ long, 15μ wide at base (paratypes 61 to 69μ × 15μ), bearing 4 microsetae and 1 long apical setae. Tarsi I-II with 3 thin, short subapical setae and 2 longer, stronger non-foliate mediodorsal setae, tarsi III with 1 thin apicoventral seta and 3 long non-foliate dorsal setae. Solenidia ω1 and ω2 distinctly shorter than ω3.

Material examined: Lectotype (N198112) and 12 paralectotypes (N198113-N198124), ex *Mesotrichia bryorum*, Moa Id, Torres Strait, Queensland, S. W. Schomberg. On two slides.

Remarks: As Womersley only designated the above specimens as syntypes, I have designated a lectotype. *S. queenslandica* was provisionally placed in the subgenus *Aslosennertia* by Fain (1981) but, after examination, I now include it in *Afrosennertia*. It is distinguished from *S. (A.) jeanalexi* Fain and *S. (A.) basilewskyi* Fain by the very thin dorsal striations. It is distinguished from *S. (A.) monicae* Fain by the relatively smaller length of tarsus IV (ratio length/width = 1:4 to 1:4, 6), the more apical placement of the ventral setae of tarsus IV, the more rounded shape of the dorsal shield, the much greater length of setae *sc e*, *l*1 and *l*3 compared with *l*2 and *h*, and the greater size of the body and claws.

Sennertia (Sennertia) leei sp. nov.

FIGS 3–4

Description of hypopi: Holotype 310μ long, 240μ wide.

Dorsum: Cuticular striations separated from each other by punctate bands. Hysteronotal shield 220μ long, 135μ wide (maximum), with

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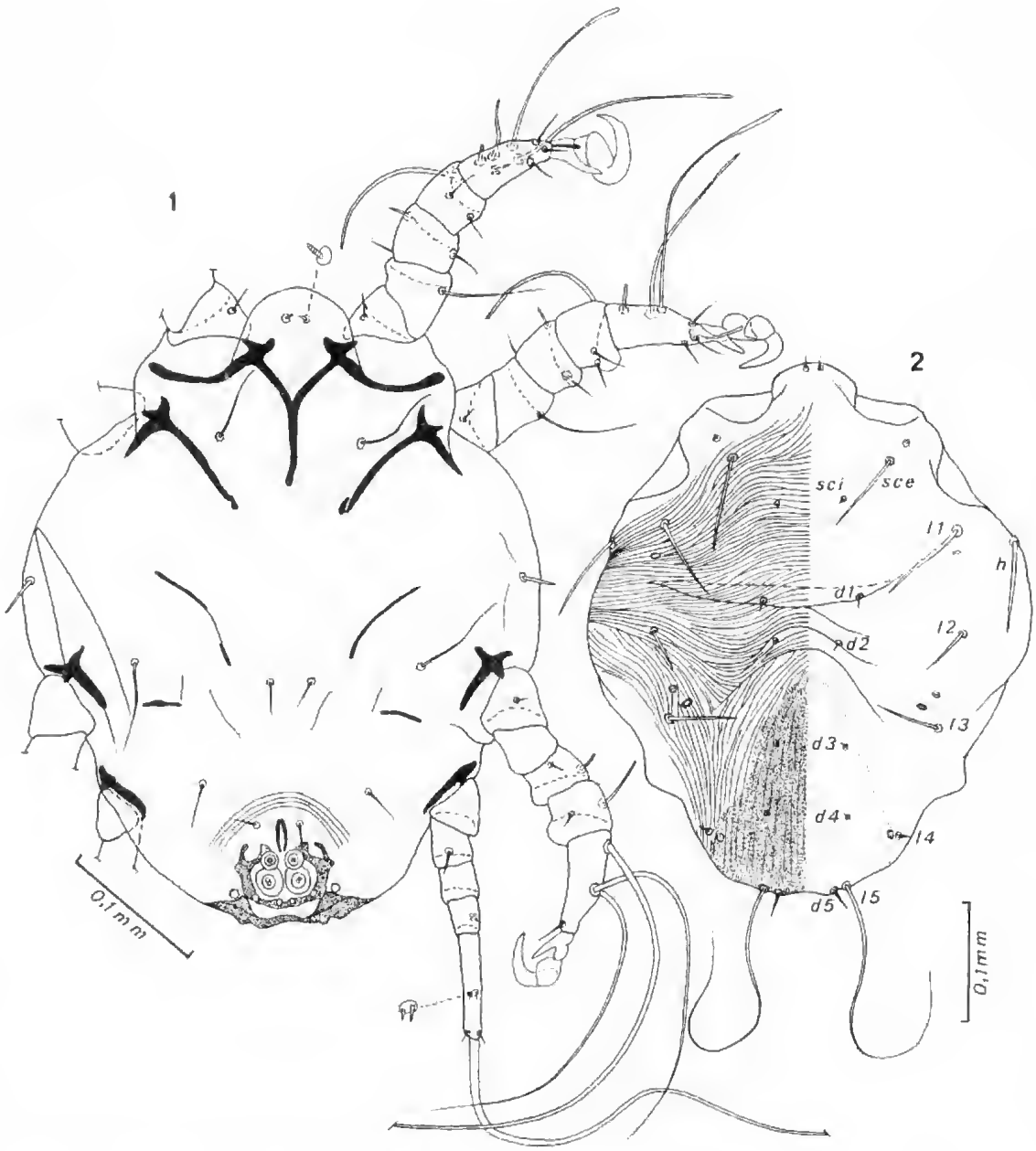
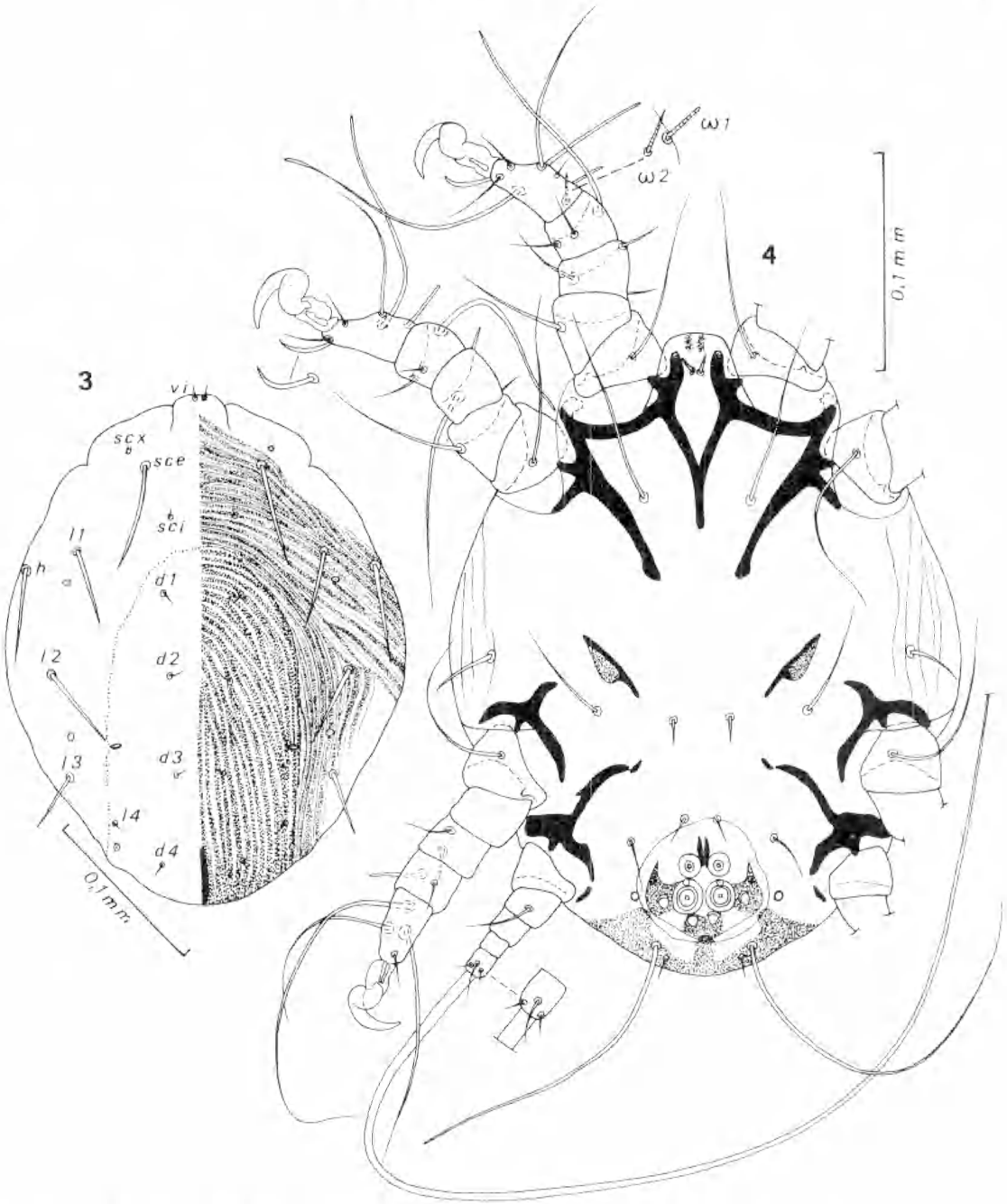


Figs 1–2. *Sennertia (Afrosennertia) queenslandica* Hypopus: 1. Ventral view; 2. Dorsal view.

irregular borders, attenuated in anterior third, and with short posteromedian sclerite; prolonged ventrally and bearing setae *d*1 to *d*5 (all very short and thin). Setae *sc i* microsetae. Setae *sc e*, *l*1, *l*2, *l*3, and *h* 62μ, 48μ, 45μ, 37μ and 60μ long respectively. Setae *l*5 180μ long (in paratype) and 39μ apart.

Venter: Setae *sh* thin, 27μ long. All ventral setae very thin, some long (*cx* 1, *cx* III). Suctorial plate 60μ wide; diameter of anterior suckers 12μ, of posterior suckers 15μ. Conoids small, lateral ones on same line as posterior suckers.

Legs: Claws I-III 33μ long. Pretarsi without process. Tarsi IV 12μ long, 11μ wide at base, bearing 1 short ventral seta, 2 very short



Figs 3–4. *Sennertia (Sennertia) leei* sp.nov. Hypopus: 3. Dorsal view; 4. Ventral view.

apicoventral setae and very long apical seta. Tarsi I-II with 3 short preapical setae, one ventral being rod-like, slightly curved in apical half and 18μ long. Tarsus III with thin apicoventral seta. Dorsal surface of tarsi I-III with 3 long non-foliate setae. Solenidion ω3 much longer than ω1.

Material examined: Holotype (N19811) and 12 paratypes (N19812-N198111; 1 in author's collection), ex *Lestis bombylans*, near Ku-rin-gai, N.S.W., "Ratm. Coll." On three slides.

Remarks: Species named after Mr D. C. Lee, South Australian Museum. *S. leei* belongs to

the *"cerambycina"* group. It is well characterized by the unusual nature of the dorsal striations, these being thin but separated from each other by very finely punctate bands. In all the other species of this group the striations are either thick and punctate, or very thin and not separated by punctate bands.

Sennertia (Sennertia) alfkeni Oudemans

Trichotarsus alfkeni Oudemans, 1901: 115, figs 18-20.

Sennertia alfkeni: Fain, 1974: 229 (fig. 11, 12, 15, 16).

Sennertia ?bifilis: Womersley, 1941: 480 (figs 17 in part) (not *Sennertia bifilis* Canestrini, 1897).

Material examined: Four hypopi (N198129, N198130, 2 in author's collection), ex *Mesotrichia bryorum*, Moa Id, Torres Strait, Queensland, S. W. Schomberg. Four hypopi (N198125-N198128), ex *M. bryorum*, Bowen, Queensland. On four slides.

Remarks: S. bifilis Canestrini was described from *Xylocopa combinata* from Astrolabe Bay, New Guinea. I redescribed the type material of *S. alfkeni* from *Xylocopa circumvolans* from Japan (Fain 1974); this corresponds very well with the specimens called *"Sennertia ?bifilis"* by Womersley (1941).

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